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FILE 'HOME' ENTERED AT 14:02:50 ON 17 SEP 2007  
ENTER COST CENTER (NONE):none

=> index bioscience

FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED

COST IN U.S. DOLLARS

FULL ESTIMATED COST ENTRY SESSION  
0.21 0.21

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 14:03:04 ON 17 SEP 2007

69 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view search error messages that display as 0\* with SET DETAIL OFF.

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=> s (labeled (w) (protein or peptide or polypeptide)) and (nanopore or nanochannel
or nanotube)
      1  FILE BIOENG
      1  FILE BIOTECHABS
      1  FILE BIOTECHD5
13 FILES SEARCHED...
      12 FILE CAPLUS
23 FILES SEARCHED...
      1  FILE ESBIOBASE
34 FILES SEARCHED...
      6  FILE IFIPAT
      1  FILE LIFESCI
45 FILES SEARCHED...
      1  FILE SCISEARCH
      1  FILE TOXCENTER
60 FILES SEARCHED...
      85 FILE USPATFULL
      9  FILE USPAT2
      2  FILE WPIDS
      2  FILE WPINDEX
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13 FILES HAVE ONE OR MORE ANSWERS. 69 FILES SEARCHED IN STNINDEX

L1 QUE (LABELED (W) (PROTEIN OR PEPTIDE OR POLYPEPTIDE)) AND (NANOPORE OR NANOCHEMICAL CHANNEL OR NANOTUBE)

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=> s (transcription coupled translation) and (labeled (w) amino (w) acid)
 13 FILES SEARCHED...
 23 FILES SEARCHED...
 41 FILES SEARCHED...
 59 FILES SEARCHED...
      1 FILE USPATFULL
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1 FILE USPAT2

2 FILES HAVE ONE OR MORE ANSWERS, 69 FILES SEARCHED IN STNINDEX

L2 QUE (TRANSCRIPTION COUPLED TRANSLATION) AND (LABELED (W) AMINO (W) ACID)

=> s (transcription coupled translation)

1 FILE AQUASCI  
2 FILE BIOENG  
16 FILE BIOSIS  
2 FILE BIOTECHABS  
2 FILE BIOTECHDS  
8 FILE BIOTECHNO  
2 FILE CABA  
16 FILE CAPLUS

15 FILES SEARCHED...

1 FILE DISSABS  
2 FILE DRUGU

27 FILES SEARCHED...

10 FILE EMBASE  
9 FILE ESBIOBASE  
31 FILE GENBANK  
4 FILE IFIPAT  
8 FILE LIFESCI  
13 FILE MEDLINE  
4 FILE PASCAL  
11 FILE SCISEARCH  
7 FILE TOXCENTER

60 FILES SEARCHED...

25 FILE USPATFULL  
3 FILE USPAT2

21 FILES HAVE ONE OR MORE ANSWERS, 69 FILES SEARCHED IN STNINDEX

L3 QUE (TRANSCRIPTION COUPLED TRANSLATION)

=> file biosis, hcaplus, embase, lifesci, medline, scisearch, toxcenter  
COST IN U.S. DOLLARS SINCE FILE TOTAL  
ENTRY SESSION  
FULL ESTIMATED COST 10.08 10.29

FILE 'BIOSIS' ENTERED AT 14:12:30 ON 17 SEP 2007  
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(FILE 'HOME' ENTERED AT 14:02:50 ON 17 SEP 2007)

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 14:03:04 ON 17 SEP 2007  
SEA (LABELED (W) (PROTEIN OR PEPTIDE OR POLYPEPTIDE)) AND (NANO

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1 FILE BIOENG  
1 FILE BIOTECHABS  
1 FILE BIOTECHDS  
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1 FILE ESBIOBASE  
6 FILE IFIPAT  
1 FILE LIFESCI  
1 FILE SCISEARCH  
1 FILE TOXCENTER  
85 FILE USPATFULL  
9 FILE USPAT2  
2 FILE WPIDS  
2 FILE WPINDEX

L1 QUE (LABELED (W) (PROTEIN OR PEPTIDE OR POLYPEPTIDE)) AND (NANO

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SEA (TRANSCRIPTION COUPLED TRANSLATION) AND (LABELED (W) AMINO

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1 FILE USPATFULL  
1 FILE USPAT2  
QUE (TRANSCRIPTION COUPLED TRANSLATION) AND (LABELED (W) AMINO

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SEA (TRANSCRIPTION COUPLED TRANSLATION)

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1 FILE AQUASCI  
2 FILE BIOENG  
16 FILE BIOSIS  
2 FILE BIOTECHABS  
2 FILE BIOTECHDS  
8 FILE BIOTECHNO  
2 FILE CABA  
16 FILE CAPLUS  
1 FILE DISSABS  
2 FILE DRUGU  
10 FILE EMBASE  
9 FILE ESBIOBASE  
31 FILE GENBANK  
4 FILE IFIPAT  
8 FILE LIFESCI  
13 FILE MEDLINE  
4 FILE PASCAL  
11 FILE SCISEARCH  
7 FILE TOXCENTER  
25 FILE USPATFULL  
3 FILE USPAT2

L3 QUE (TRANSCRIPTION COUPLED TRANSLATION)

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FILE 'BIOSIS, HCPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH, TOXCENTER'  
ENTERED AT 14:12:30 ON 17 SEP 2007

=> s 11

L4 15 L1

=> s 13

L5 81 L3

=> dup rem 14  
PROCESSING COMPLETED FOR L4  
L6 12 DUP REM L4 (3 DUPLICATES REMOVED)

=> dup rem 15  
PROCESSING COMPLETED FOR L5  
L7 23 DUP REM L5 (58 DUPLICATES REMOVED)

=> d 16 1-12 ibib, kwic

L6 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2007:798022 HCAPLUS  
DOCUMENT NUMBER: 147:249509  
TITLE: Fabrication of micro/nanostructure chip for enriching sample and its sample-enrichment method  
INVENTOR(S): Jin, Qinghui; Liu, Jing; Zhao, Jianlong  
PATENT ASSIGNEE(S): Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences, Peop. Rep. China  
SOURCE: Faming Zhanli Shengqing Gongkai Shuomingshu, 13pp.  
CODEN: CNXXEV  
DOCUMENT TYPE: Patent  
LANGUAGE: Chinese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 101000290	A	20070718	CN 2007-10036415	20070112
PRIORITY APPLN. INFO.:			CN 2007-10036415	20070112

AB The title chip comprises a quartz glass substrate, an **nanochannel** for enriching sample, and two micrometer-scaled sample-transmission channels sandwiching the **nanochannel**. The fabrication method comprises processing the **nanochannel** and sample-transmission channels on the substrate surface by micro-electro-mech. system (MEMS) process, and bonding the substrate with a cover at low temperature. The title sample-enrichment method comprises filling the channels with samples, and applying d.c. voltage between sample cells to form elec. field in the **nanochannel**. Owing to the stacking of Debye layers in the **nanochannel** to form an ion trapping belt, the samples can be prevented from passing through the ion trapping belt so as to being enriched near the **nanochannel** and form a sample-enrichment belt.

IT 27072-45-3D, FITC, **labeled proteins**  
RL: ANT (Analyte); ANST (Analytical study)  
(fabrication of micro/nanostructure chip for enriching sample and its sample-enrichment method)

L6 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2007:675584 HCAPLUS  
DOCUMENT NUMBER: 147:253160  
TITLE: Integration of a self-assembling protein scaffold with water-soluble single-walled carbon **nanotubes**  
AUTHOR(S): Holder, Patrick G.; Francis, Matthew B.  
CORPORATE SOURCE: Department of Chemistry, University of California, Berkeley, CA, 94720, USA  
SOURCE: Angewandte Chemie, International Edition (2007), 46(23), 4370-4373  
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Integration of a self-assembling protein scaffold with water-soluble single-walled carbon **nanotubes**  
AB The parallel alignment of single-walled carbon **nanotubes** (NTs) with a self-assembling biomol. scaffold, the tobacco mosaic virus (TMV), is presented. A multifunctional polymeric surfactant brings together these two disparate components: The NTs are solubilized by a layer of poly(ethylene glycol) attached through a pyrene anchor, and the pendant alkoxyamine groups of the surfactant allow mild bioconjugation with ketone-labeled proteins.  
ST integration self assembling protein scaffold single walled carbon **nanotube**  
IT Proteins  
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); BIOL (Biological study); PROC (Process); USES (Uses)  
(TMVP (tobacco mosaic virus coat protein), ketone-labeled; integration of self-assembling ketone-labeled protein scaffold with water-soluble single-walled carbon **nanotubes** functionalized with ketone-reactive pyrene surfactants)  
IT Functional groups  
(alkoxyamine; integration of self-assembling ketone-labeled protein scaffold with water-soluble single-walled carbon **nanotubes** functionalized with ketone-reactive pyrene surfactants)  
IT **Nanotubes**  
(carbon; integration of self-assembling ketone-labeled protein scaffold with water-soluble single-walled carbon **nanotubes** functionalized with ketone-reactive pyrene surfactants)  
IT Nanofabrication  
Self-assembly  
Solubilization  
Tobacco mosaic virus  
(integration of self-assembling ketone-labeled protein scaffold with water-soluble single-walled carbon **nanotubes** functionalized with ketone-reactive pyrene surfactants)  
IT Polyoxyalkylenes, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(integration of self-assembling ketone-labeled protein scaffold with water-soluble single-walled carbon **nanotubes** functionalized with ketone-reactive pyrene surfactants)  
IT Proteins  
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); BIOL (Biological study); PROC (Process); USES (Uses)  
(ketone-labeled; integration of self-assembling ketone-labeled protein scaffold with water-soluble single-walled carbon **nanotubes** functionalized with ketone-reactive pyrene surfactants)  
IT Surfactants  
(polymeric; integration of self-assembling ketone-labeled protein scaffold with water-soluble single-walled carbon **nanotubes** functionalized with ketone-reactive pyrene surfactants)  
IT 19262-73-8DP, reaction products with protein tyrosine residues 845533-22-4P 945865-50-9P 945865-51-0P  
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(integration of self-assembling ketone-labeled protein scaffold with water-soluble single-walled carbon

IT 60-18-4D, L-Tyrosine, proteins containing, reaction products with aminoacetophenone diazonium salt 62-53-3, Aniline, reactions 524-38-9, N-Hydroxyphthalimide 6192-52-5, p-Toluenesulfonic acid monohydrate 7632-00-0, Sodium nitrite 9004-74-4, Poly(ethylene glycol)monomethyl ether 25322-68-3, Poly(ethylene glycol) 68967-09-9, Pyrenecarboxaldehyde  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(integration of self-assembling ketone-labeled protein scaffold with water-soluble single-walled carbon nanotubes functionalized with ketone-reactive pyrene surfactants)

IT 160556-34-3P 259186-76-0P 945024-87-3P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(integration of self-assembling ketone-labeled protein scaffold with water-soluble single-walled carbon nanotubes functionalized with ketone-reactive pyrene surfactants)

IT 7440-44-0, Carbon, biological studies  
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); BIOL (Biological study); PROC (Process); USES (Uses)  
(nanotubes; integration of self-assembling ketone-labeled protein scaffold with water-soluble single-walled carbon nanotubes functionalized with ketone-reactive pyrene surfactants)

L6 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2007:879289 HCAPLUS  
TITLE: Monte-Carlo simulations of dye-labeled proteins diffusing in nanopores  
AUTHOR(S): Hohlbein, Johannes; Steinhart, Martin; Hinze, Erik; Schiene-Fischer, Cordelia; Hubner, Christian G.; Gosele, Ulrich  
CORPORATE SOURCE: Max Planck Institute of Microstructure Physics, 06120, Halle, N/A, Germany  
SOURCE: Abstracts of Papers, 234th ACS National Meeting, Boston, MA, United States, August 19-23, 2007 (2007), BIOT-323. American Chemical Society: Washington, D. C.  
CODEN: 69JNR2  
DOCUMENT TYPE: Conference; Meeting Abstract; (computer optical disk)  
LANGUAGE: English

TI Monte-Carlo simulations of dye-labeled proteins diffusing in nanopores  
AB The investigation of fluorescence resonance energy transfer (FRET) in donor-acceptor labeled proteins allows monitoring their internal dynamics. Probe mols. confined to nanopores having their pore axes oriented parallel with the long axis of the focal volume of a confocal microscope show apparent one-dimensional diffusion. Thereby, their dwell time in the focal volume is more than one order of magnitude longer than in free solution. Simulations revealed that conformational changes of doubly labeled proteins can thus be monitored with significantly higher accuracy on an extended timescale. Moreover, alternating laser excitation allows the separation of FRET signals from signals of proteins bearing only one chromophor. Single mol. fluorescence detection with dually labeled protein probes confined to properly oriented nanopores should be a viable and robust strategy potentially superior to measurements in free solution

L6 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:431901 HCPLUS  
DOCUMENT NUMBER: 145:98783  
TITLE: Simultaneous Removal of Thiolated Membrane Proteins  
Resulting in Nanostructured Lipid Layers  
AUTHOR(S): Wu, Aiguo; Jia, Zhihong; Schaper, Andreas; Noll,  
Frank; Hampp, Norbert A.  
CORPORATE SOURCE: Faculty of Chemistry and Materials Sciences Center,  
University of Marburg, Marburg, D-35032, Germany  
SOURCE: Langmuir (2006), 22(12), 5213-5216  
CODEN: LANGD5; ISSN: 0743-7463  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Self-organization of membrane-embedded peptides and proteins causes the formation of lipid mesostructures in the membranes. One example is purple membranes (PM), which consist of lipids and bacteriorhodopsin (BR) as the only protein component. The BRs form a hexagonal crystalline lattice. A complementary structure is formed by the lipids. Employing BR and PM as an example, the authors report a method where major parts of the mesoscopic self-assembled protein structures can be extracted from the lipid bilayer membrane. A complementary lipid nanostructure remains on the substrate. To remove such a large number of thiolated proteins simultaneously by applying a mech. force, they are first reacted at physiol. conditions with gold nanoparticles, and then a thin gold film is sputtered onto them that fuses with the gold nanoparticles forming a uniform layer, which finally can be lifted off. In this step, all of the previously gold-labeled proteins are pulled out of the membrane simultaneously. A stable lipid nanostructure is obtained on the mica substrate. Its stability is due to either binding of the lipids to the substrate through ionic bonds or to enough residual proteins to stabilize the lipid nanostructure against reorganization. This method may be applied easily and efficiently wherever thiolated proteins or peptides are employed as self-assembling and structure-inducing units in lipid membranes.

IT Pore  
(nanopore; simultaneous removal of thiolated membrane  
proteins resulting in nanostructured lipid layers on mica substrates)  
IT Nanostructures  
(nanopores; simultaneous removal of thiolated membrane  
proteins resulting in nanostructured lipid layers on mica substrates)

L6 ANSWER 5 OF 12 HCPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2006:777691 HCPLUS  
DOCUMENT NUMBER: 145:262307  
TITLE: Peptides and peptidomimetics in medicine, surgery and  
biotechnology  
AUTHOR(S): Gentilucci, Luca; Tolomelli, Alessandra; Squassabia,  
Federico  
CORPORATE SOURCE: Dept. of Chemistry "G. Ciamician", Universita degli  
Studi di Bologna, Bologna, 40126, Italy  
SOURCE: Current Medicinal Chemistry (2006), 13(20), 2449-2466  
CODEN: CMCHE7; ISSN: 0929-8673  
PUBLISHER: Bentham Science Publishers Ltd.  
DOCUMENT TYPE: Journal; General Review  
LANGUAGE: English  
REFERENCE COUNT: 271 THERE ARE 271 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

AB A review. Despite the fact that they have been used for a century to treat several kinds of diseases, peptides and short proteins are now considered the new generation of biol. active tools. Indeed, recent findings suggest a wide range of novel applications in medicine,

biotechnol., and surgery. The efficacy of native peptides has been greatly enhanced by introducing structural modifications in the original sequences, giving rise to the class of peptidomimetics. This review gives an overview of both classical applications and promising new categories of biol. active peptides and analogs. Besides the new entries in well known peptide families, such as antibiotic macrocyclic peptides, integrin inhibitors, as well as immunoactive, anticancer, neuromodulator, opioid, and hormone peptides, a number of novel applications have been recently reported. Outstanding examples include peptide-derived semi-synthetic vaccines, drug delivery systems, radiolabeled peptides, self-assembling peptides, which can serve as biomaterials in tissue engineering for creating cartilage, blood vessels, and other tissues, or as substrates for neurite outgrowth and synapse formation, immobilized peptides, and proteins. Finally, peptide-based biomaterials can find applications in bio-nanotechnol. for bio-microchips, peptide nanorods and **nanotubes**, bio-sensors, bio-electronic devices, and peptide-metal wires.

IT Peptides, biological studies  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(**labeled; peptides** and peptidomimetics in medicine, surgery and biotechnol.)

L6 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2006:856537 HCAPLUS  
TITLE: Self-assembly of fluorescent peptides and their incorporation into A $\beta$ (16-22) **nanotubes**  
AUTHOR(S): Liang, Yan; Berland, Keith M.; Lynn, David  
CORPORATE SOURCE: Departments of Chemistry and Biology, Emory University, Atlanta, GA, 30322, USA  
SOURCE: Abstracts of Papers, 232nd ACS National Meeting, San Francisco, CA, United States, Sept. 10-14, 2006 (2006), BIOL-053. American Chemical Society: Washington, D. C.  
CODEN: 69IHRD  
DOCUMENT TYPE: Conference; Meeting Abstract; (computer optical disk)  
LANGUAGE: English

TI Self-assembly of fluorescent peptides and their incorporation into A $\beta$ (16-22) **nanotubes**  
AB The self-assembly of amyloid  $\beta$  (A $\beta$ ) peptides is a multi-step process forming nanofibrils with  $\beta$ -sheet secondary structure. There remains much to learn about the relationship between the peptide sequence and the resulting  $\beta$ -sheet and amyloid fiber morphol. Rh-LVFFAE (Rh17-22) and Rh-KLVFFAE (Rh16-22) are two N-terminal rhodamine (Rh) **labeled peptides** of LVFFAE (A $\beta$ (17-22)) and KLVFFAE (A $\beta$ (16-22)). Both of these **labeled peptides** can form fibers that are morphol. similar to those formed by A $\beta$ (16-22). In contrast, Rh-HQKLVFFAE (Rh14-22) and Rh-QKLVFFAE (Rh15-22) do not self-assemble under these conditions. However, all four **labeled peptides** are incorporated into A $\beta$ (16-22) **nanotubes**. Fig 1 shows the image of Rh17-22 in A $\beta$ (16-22) **nanotubes** by two photon fluorescence microscope; these morphologies are correlated with transmission electron microscope images (not shown). We will discuss the use of such fluorescent probes to follow the self-assembly of amyloid fibers and **nanotubes**, and we will define structural dynamics associated with **nanotube** morphol.

L6 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2005:1335583 HCAPLUS  
DOCUMENT NUMBER: 144:47687  
TITLE: Methods and device for analyte characterization  
INVENTOR(S): Su, Xing; Berlin, Andrew A.  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 36 pp., Cont.-in-part of U.S.

Ser. No. 138,157.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005282229	A1	20051222	US 2003-697682	20031029
US 2003207326	A1	20031106	US 2002-138157	20020501
WO 2005052591	A1	20050609	WO 2003-US34526	20031031
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003304573	A1	20050617	AU 2003-304573	20031031
EP 1685407	A1	20060802	EP 2003-819075	20031031
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
CN 1860370	A	20061108	CN 2003-80110616	20031031
PRIORITY APPLN. INFO.:				
US 2002-138157 A2 20020501				
US 2003-697682 A 20031029				
WO 2003-US34526 W 20031031				

AB The methods and apparatus, disclosed herein are of use for sequencing and/or identifying proteins, polypeptides and/or peptides. Proteins containing labeled amino acid residues may be synthesized and passed through **nanopores**. A detector operably coupled to a **nanopore** may detect labeled amino acid residues as they pass through the **nanopore**. Distance maps for each type of labeled amino acid residue may be compiled. The distance maps may be used to sequence and/or identify the protein. Apparatus of use for protein sequencing and/or identification is also disclosed herein. In alternative methods, other types of analytes may be analyzed by the same techniques. Single nucleotides and amino acids were detected by SERS.

ST device analyte characterization; protein sequencing identification device; **nanopore** detector labeled amino acid protein sequencing

IT Amino acids, analysis  
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)  
(Raman spectroscopy detection of; **nanopore** sensor device for analyte characterization)

IT Blood serum  
(SERS spectrum of dried calf; **nanopore** sensor device for analyte characterization)

IT Sensors  
(amperometric; **nanopore** sensor device for analyte characterization)

IT Biological materials  
(anal. of; **nanopore** sensor device for analyte characterization)

IT Chemiluminescent substances  
Electric conductors  
Fluorescent substances  
Luminescent substances  
Phosphorescent substances  
(as labels; **nanopore** sensor device for analyte characterization)

IT Analysis  
(biochem.; **nanopore** sensor device for analyte characterization)

IT Samples  
(biol., anal. of; **nanopore** sensor device for analyte characterization)

IT Spin labels  
(for NMR or ESR; **nanopore** sensor device for analyte characterization)

IT Genetic vectors  
(for polypeptide, cells transformation with; **nanopore** sensor device for analyte characterization)

IT Electric potential  
(gradient between chambers of apparatus; **nanopore** sensor device for analyte characterization)

IT Cell  
(in preparation of labeled mol. from labeled subunits; **nanopore** sensor device for analyte characterization)

IT Amino acids, analysis  
RL: ANT (Analyte); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study)  
(labeled, in proteins; **nanopore** sensor device for analyte characterization)

IT Peptides, analysis  
Proteins  
RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)  
(labeled; **nanopore** sensor device for analyte characterization)

IT ESR spectroscopy  
Mass spectrometry  
NMR spectroscopy  
Raman spectroscopy  
(labels for; **nanopore** sensor device for analyte characterization)

IT Opaque materials  
(layers of, in sensor layers; **nanopore** sensor device for analyte characterization)

IT Analysis  
Analytical apparatus  
Biosensors  
Charge coupled devices  
Computers  
Electrodes  
Fluids  
Light sources  
Optical amplifiers  
Optical detectors  
Potentiometers  
Protein sequence analysis  
Raman spectrometers  
SERS (Raman scattering)  
Sensors  
(**nanopore** sensor device for analyte characterization)

IT Pore  
(**nanopore**; **nanopore** sensor device for analyte characterization)

IT Nanostructures  
(**nanopores**; **nanopore** sensor device for analyte characterization)

IT Nanotubes  
(or **nanochannel**; **nanopore** sensor device for analyte characterization)

IT Lipids, analysis  
Oligonucleotides  
Polysaccharides, analysis  
RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)  
(preparation of labeled and identification of; **nanopore** sensor device for analyte characterization)

IT Nucleic acid amplification (method)  
(rolling circle amplification, Raman spectroscopy of oligonucleotides prepared by; **nanopore** sensor device for analyte characterization)

IT Photon  
(sensing layer; **nanopore** sensor device for analyte characterization)

IT Films  
(sensor layers; **nanopore** sensor device for analyte characterization)

IT Peptides, analysis  
Proteins  
RL: ANT (Analyte); BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); ANST (Analytical study); BIOL (Biological study); RACT (Reactant or reagent)  
(sequencing and identification and labeling of; **nanopore** sensor device for analyte characterization)

IT Albumins, analysis  
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)  
(serum, SERS spectrum of bovine; **nanopore** sensor device for analyte characterization)

IT Nanoparticles  
(silver, as Raman active substrate; **nanopore** sensor device for analyte characterization)

IT Nucleic acids  
RL: ARU (Analytical role, unclassified); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)  
(template, for **labeled protein** production;  
**nanopore** sensor device for analyte characterization)

IT 52-90-4, L-Cysteine, analysis 60-18-4, L-Tyrosine, analysis 63-68-3, L-Methionine, analysis 63-91-2, L-Phenylalanine, analysis 71-00-1, L-Histidine, analysis 73-22-3, L-Tryptophan, analysis 74-79-3, L-Arginine, analysis 16626-02-1, 5-Fluorotryptophan  
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)  
(Raman spectroscopy detection of; **nanopore** sensor device for analyte characterization)

IT 65-71-4, Thymine 71-30-7, Cytosine 73-24-5, Adenine, analysis 73-40-5, Guanine 365-07-1, DTMP 653-63-4, DAMP 902-04-5, DGMP 1032-65-1, DCMP  
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)  
(SERS detection of; **nanopore** sensor device for analyte characterization)

IT 9002-07-7, Trypsin  
RL: BSU (Biological study, unclassified); CAT (Catalyst use); BIOL (Biological study); USES (Uses)  
(SERS spectrum of peptides from serum proteins digested with;  
**nanopore** sensor device for analyte characterization)

IT 1927-31-7D, DATP, fluoresceinylated 2321-07-5D, Fluorescein, conjugate with dATP  
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)  
(SERS spectrum of; **nanopore** sensor device for analyte characterization)

IT 7429-90-5, Aluminum, analysis  
 RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)  
 (as Raman active substrate; **nanopore** sensor device for analyte characterization)

IT 7440-22-4, Silver, analysis  
 RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)  
 (nanoparticles, as Raman active substrate; **nanopore** sensor device for analyte characterization)

L6 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:588334 HCAPLUS  
 DOCUMENT NUMBER: 143:93574  
 TITLE: Methods and compositions for detecting nucleic acids using scanning probe microscopy and nanocodes  
 INVENTOR(S): Yamakawa, Mineo; Berlin, Andrew  
 PATENT ASSIGNEE(S): Intel Corp., USA  
 SOURCE: U.S. Pat. Appl. Publ., 29 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005147981	A1	20050707	US 2003-750515	20031231
WO 2005066368	A2	20050721	WO 2004-US43632	20041228
WO 2005066368	A3	20051124		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, SM				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1711625	A2	20061018	EP 2004-818085	20041228
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
CN 1950516	A	20070418	CN 2004-80039499	20041228
JP 2007522799	T	20070816	JP 2006-547471	20041228
PRIORITY APPLN. INFO.:			US 2003-750515	A 20031231
			WO 2004-US43632	W 20041228

AB Methods and compns. for detecting nucleic acids using scanning probe microscopy and nanocodes are provided. A method for determining a nucleotide sequence of a nucleic acid is provided that includes contacting the nucleic acid with a series of labeled oligonucleotides for binding to the nucleic acid, wherein each labeled oligonucleotide includes a known nucleotide sequence and a mol. nanocode. The nanocode of an isolated labeled oligonucleotides that binds to the nucleic acid is then detected using SPM. Nanocodes of the present invention in certain aspects include detectable features beyond the arrangement of tags that encode information about the barcoded object, which assist in detecting the tags that encode information about the barcoded object. The detectable features include structures of a nanocode or associated with a nanocode, referred to herein as detectable feature tags, for error checking/error-correction, encryption, and data reduction/compression. In a particular embodiment, a peptide probes was labeled with C60 tags by attaching tags to lysine residues. The **labeled polypeptide** was deposited on an annealed gold

IT SPM substrate by nanodropping, followed by drying and SPM was performed.

IT **Nanotubes**  
(carbon; methods and compns. for detecting nucleic acids using scanning probe microscopy and nanocodes)

IT 7440-44-0, Carbon, biological studies  
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
(**nanotubes**; methods and compns. for detecting nucleic acids using scanning probe microscopy and nanocodes)

L6 ANSWER 9 OF 12 HCPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2005:573639 HCPLUS  
DOCUMENT NUMBER: 143:189376  
TITLE: Trapping of proteins under physiological conditions in a nanopipette  
AUTHOR(S): Clarke, Richard W.; White, Samuel S.; Zhou, Dejian; Ying, Liming; Klenerman, David  
CORPORATE SOURCE: Department of Chemistry, University of Cambridge, Cambridge, UK  
SOURCE: Angewandte Chemie, International Edition (2005), 44(24), 3747-3750  
CODEN: ACIEF5; ISSN: 1433-7851  
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB A nanopipet is used for electrodeless dielectrophoresis and clear evidence is shown, by using wide-field fluorescence imaging, for the reversible trapping of Alexa-488-labeled proteins (protein G and IgG) and also of the fluorophore alone. The dielectrophoretic concentration is enhanced by at least a factor of 300 for these fluorophore-labeled proteins.

IT **Nanotubes**  
Pipets  
(nanopipets; trapping of proteins under physiol. conditions in nanopipet in electrodeless dielectrophoresis)

L6 ANSWER 10 OF 12 HCPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1  
ACCESSION NUMBER: 2006:197937 HCPLUS  
DOCUMENT NUMBER: 144:318187  
TITLE: Efficient DNA and peptide delivery by functionalized chitosan-coated single-wall carbon **nanotubes**  
AUTHOR(S): Kumar, Arun; Jena, Prasanna K.; Behera, Sumita; Lockey, Richard F.; Mohapatra, Shyam  
CORPORATE SOURCE: Joy McCann Culverhouse Airway Disease Center, Division of Allergy and Immunology and Department of Internal Medicine, University of South Florida College of Medicine and V A Hospital, Tampa, FL, USA  
SOURCE: Journal of Biomedical Nanotechnology (2005), 1(4), 392-396  
CODEN: JBNOAB; ISSN: 1550-7033  
PUBLISHER: American Scientific Publishers  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Efficient DNA and peptide delivery by functionalized chitosan-coated single-wall carbon **nanotubes**

AB Functionalized carbon **nanotubes** (f-CNTs) are being intensively explored in advanced biotechnol. applications ranging from mol. biosensors to cellular growth substrates. A major limitation of CNTs for biol. application such as drug delivery is their cellular toxicity. Surface area, charge d. and coating of polymer over the surface of carbon

**nanotube** are critical parameters that determine the interaction and electrostatic complex formation between f-CNTs with DNA and/or peptide. It was reasoned that CNTs functionalized with biodegradable and biocompatible chitosan may improve their drug delivery characteristics and decrease their toxicity. Functionalized single wall carbon **nanotubes** (f-SWCNT) complexed with nanochitosan (NG042) and used for delivery of DNA encoding EGFP reporter protein or FITC-labeled peptide. A transmission electron microscope was used to characterize the cluster of non functionalized SWCNT and functionalized SWCNT with nanochitosan (NG042) and DNA. Bronchoalveolar lavage cells of mice administered with f-SWCNT show enhanced uptake of chitosan by lung cells. Also, f-SWCNT-chitosan is more effective in intracellular delivery of peptide compared to chitosan. Taken together, these results show that f-SWCNT-chitosan significantly increases DNA and peptide delivery to the cells.

ST carbon **nanotube** chitosan DNA peptide delivery gene therapy  
IT Animal cell line  
(Hek 293; efficient DNA and peptide delivery by functionalized chitosan-coated single-wall carbon **nanotubes**)  
IT **Nanotubes**  
(carbon; efficient DNA and peptide delivery by functionalized chitosan-coated single-wall carbon **nanotubes**)  
IT DNA  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(complexes; efficient DNA and peptide delivery by functionalized chitosan-coated single-wall carbon **nanotubes**)  
IT Drug delivery systems  
Gene therapy  
Genetic vectors  
Human  
Lung  
Transformation, genetic  
(efficient DNA and peptide delivery by functionalized chitosan-coated single-wall carbon **nanotubes**)  
IT Biological transport  
(uptake; efficient DNA and peptide delivery by functionalized chitosan-coated single-wall carbon **nanotubes**)  
IT 854932-78-8D, NG 042, complex with chitosan and carbon **nanotubes**  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(NG 042; efficient DNA and peptide delivery by functionalized chitosan-coated single-wall carbon **nanotubes**)  
IT 9012-76-4D, Chitosan, complex with NG042 and carbon **nanotubes**  
85637-73-6, Atrial natriuretic peptide  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(efficient DNA and peptide delivery by functionalized chitosan-coated single-wall carbon **nanotubes**)  
IT 7440-44-0D, Carbon, complex with chitosan and NG042  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(**nanotubes**; efficient DNA and peptide delivery by functionalized chitosan-coated single-wall carbon **nanotubes**)

L6 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 2  
ACCESSION NUMBER: 2005:583742 HCAPLUS  
DOCUMENT NUMBER: 143:281847  
TITLE: Suspended glass **nanochannels** coupled with microstructures for single molecule detection  
AUTHOR(S): Verbridge, Scott S.; Edel, Joshua B.; Stavis, Samuel M.; Moran-Mirabal, Jose M.; Allen, Scott D.; Coates, Geoffrey; Craighead, H. G.  
CORPORATE SOURCE: Department of Physics, Cornell University, Ithaca, NY, 14853, USA  
SOURCE: Journal of Applied Physics (2005), 97(12), 124317/1-124317/4  
CODEN: JAPIAU; ISSN: 0021-8979

PUBLISHER: American Institute of Physics  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Suspended glass **nanochannels** coupled with microstructures for single molecule detection

AB The authors present a nonlithog. approach for forming free standing **nanochannels**, made of a variety of materials, that can be easily integrated with microfabricated structures. The approach uses a deposited polymeric fiber as a sacrificial template around which a deposited coating forms a tube. The authors formed suspended **nanochannels** of silica glass spanning a trench on a silicon wafer and used these structures for detection of single fluorescently **labeled proteins**. This geometry provides excellent isolation of the mols. of interest and also separates them from surrounding material that could create unwanted background fluorescence. The same geometry provides a platform for observing motion and mech. response of the suspended **nanochannel**, and the authors measured the mech. resonance of a glass channel of the type used for the fluorescent detection. This type of structure provides a general approach for integrating fluid carrying **nanochannels** with microstructures.

ST suspended glass **nanochannel** coupled microstructure single mol detection protein

IT Nanostructures  
(**nanochannels**; suspended glass **nanochannels** coupled with microstructures for single mol. detection of fluorescent **labeled proteins**)

IT Laser fluorometry  
Microstructure  
Single molecule detection  
(suspended glass **nanochannels** coupled with microstructures for single mol. detection of fluorescent **labeled proteins**)

IT Proteins  
RL: ANT (Analyte); ANST (Analytical study)  
(suspended glass **nanochannels** coupled with microstructures for single mol. detection of fluorescent **labeled proteins**)

IT 9012-54-8, Cellulase  
RL: ANT (Analyte); ANST (Analytical study)  
(suspended glass **nanochannels** coupled with microstructures for single mol. detection of fluorescent **labeled proteins**)

IT 178623-12-6, Rhodamine Red-X  
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
(suspended glass **nanochannels** coupled with microstructures for single mol. detection of fluorescent **labeled proteins**)

IT 60676-86-0, Silica glass  
RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); DEV (Device component use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
(suspended glass **nanochannels** coupled with microstructures for single mol. detection of fluorescent **labeled proteins**)

L6 ANSWER 12 OF 12 HCPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2004:162338 HCPLUS  
DOCUMENT NUMBER: 140:213582  
TITLE: Protein analysis by detecting unique recognition sequences using microarray containing immobilized capture agents, and diagnostic, drug discovery and

INVENTOR(S): protein sequencing use  
 Lee, Frank D.; Meng, Xun; Chan, John W.; Zhang, Shengsheng; Benkovic, Stephen J.  
 PATENT ASSIGNEE(S): Engeneos, Inc., USA  
 SOURCE: U.S. Pat. Appl. Publ., 134 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004038307	A1	20040226	US 2003-436549	20030512
CA 2485560	A1	20040603	CA 2003-2485560	20030512
WO 2004046164	A2	20040603	WO 2003-US14846	20030512
WO 2004046164	A9	20050113		
WO 2004046164	A3	20050317		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003302118	A1	20040615	AU 2003-302118	20030512
EP 1532439	A2	20050525	EP 2003-808371	20030512
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006511819	T	20060406	JP 2004-570352	20030512
US 2004180380	A1	20040916	US 2003-712425	20031113
US 2005069911	A1	20050331	US 2004-773032	20040205
US 2006014212	A1	20060119	US 2005-66967	20050225
US 2006035270	A1	20060216	US 2005-249847	20051013
PRIORITY APPLN. INFO.: US 2002-379626P P 20020510 US 2002-393137P P 20020701 US 2002-393197P P 20020701 US 2002-393211P P 20020701 US 2002-393223P P 20020701 US 2002-393233P P 20020701 US 2002-393235P P 20020701 US 2002-393280P P 20020701 US 2002-430948P P 20021204 US 2002-433319P P 20021213 US 2003-436549 A2 20030512 WO 2003-US14846 W 20030512 US 2003-712425 A2 20031113 US 2004-773032 A2 20040205				

IT Peptides, analysis  
 RL: ANT (Analyte); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
 (labeled; protein anal. by detecting unique  
 recognition sequences using microarray containing immobilized capture  
 agents, and diagnostic, drug discovery and protein sequencing use)  
 IT Amniotic fluid  
 Analytical apparatus  
 Ascitic fluid  
 Blood analysis  
 Body fluid  
 Bone marrow  
 Calibration

Cerebrospinal fluid  
Chemical industry  
Chemiluminescent substances  
Coating process  
Colorimetric indicators  
DNA microarray technology  
Diptera  
Drug discovery  
Ellipsometry  
Embryophyta  
Environmental analysis  
Eubacteria  
Feces  
Fish  
Fluorescent indicators  
Frog  
Gastric juice  
Gravimetric analysis  
High throughput screening  
Human  
Immobilization, molecular or cellular  
Immunoassay  
Interferometry  
Isotope indicators  
Microarray technology  
Mucus  
Mus  
    *Nanotubes*  
Nanowires  
Nematoda  
Pathogen  
Plants  
Pleural fluid  
Post-translational processing  
Protein microarray technology  
Protein sequence analysis  
Quantum dot devices  
Rattus  
Reflection spectroscopy  
Regression analysis  
Saccharomycetales  
Saliva  
Sample preparation  
Schizosaccharomycetales  
Secretions (external)  
Staining, biological  
Statistical analysis  
Sweat  
Synovial fluid  
Tear (ocular fluid)  
Test kits  
Urine analysis  
Virus  
    (protein anal. by detecting unique recognition sequences using  
    microarray containing immobilized capture agents, and diagnostic, drug  
    discovery and protein sequencing use)

=> d his

(FILE 'HOME' ENTERED AT 14:02:50 ON 17 SEP 2007)

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,  
AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS,

CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB,  
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1 FILE LIFESCI  
1 FILE SCISEARCH  
1 FILE TOXCENTER  
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8 FILE BIOTECHNO  
2 FILE CABA  
16 FILE CAPLUS  
1 FILE DISSABS  
2 FILE DRUGU  
10 FILE EMBASE  
9 FILE ESBIOBASE  
31 FILE GENBANK  
4 FILE IFIPAT  
8 FILE LIFESCI  
13 FILE MEDLINE  
4 FILE PASCAL  
11 FILE SCISEARCH  
7 FILE TOXCENTER  
25 FILE USPATFULL  
3 FILE USPAT2  
L3 QUE (TRANSCRIPTION COUPLED TRANSLATION)  
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FILE 'BIOSIS, HCAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH, TOXCENTER'  
ENTERED AT 14:12:30 ON 17 SEP 2007

L4 15 S L1  
L5 81 S L3  
L6 12 DUP REM L4 (3 DUPLICATES REMOVED)  
L7 23 DUP REM L5 (58 DUPLICATES REMOVED)

=> d 17 1-23 ibib, kwic

L7 ANSWER 1 OF 23 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN  
DUPLICATE 1  
ACCESSION NUMBER: 2005:495843 BIOSIS  
DOCUMENT NUMBER: PREV200510288656

TITLE: D-TMPP: A novel androgen-regulated gene preferentially expressed in prostate and prostate cancer that is the first characterized member of an eukaryotic gene family.

AUTHOR(S): Kiessling, Andrea; Weigle, Bernd; Fuessel, Susanne; Ebner, Reinhard; Meye, Axel; Rieger, Michael A.; Schmitz, Marc; Temme, Achim; Bachmann, Michael; Wirth, Manfred P.; Rieber, E. Peter [Reprint Author]

CORPORATE SOURCE: Tech Univ Dresden, Med Fac Carl Gustav Carus, Inst Immunol, Fetscherstr 74, D-01307 Dresden, Germany  
rieber@rcs.urz.tu-dresden.de

SOURCE: Prostate, (SEP 1 2005) Vol. 64, No. 4, pp. 387-400.  
CODEN: PRSTD. ISSN: 0270-4137.

DOCUMENT TYPE: Article

LANGUAGE: English

OTHER SOURCE: GenBank-AF109300; EMBL-AF109300; DDJB-AF109300

ENTRY DATE: Entered STN: 16 Nov 2005  
Last Updated on STN: 16 Nov 2005

AB. . . was isolated from prostate tissue. The potential protein-coding function of the open reading frame (ORF) was tested by *in vitro transcription-coupled translation* and recombinant expression in transfected prostate cancer cells. The expression pattern of D-TMPP in malignant and nonmalignant tissues and tumor. . .

L7 ANSWER 2 OF 23 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN  
ACCESSION NUMBER: 2005:507772 BIOSIS  
DOCUMENT NUMBER: PREV200510299557  
TITLE: Post-transcriptional regulation of human cathepsin L expression by the 5' untranslated region of its mRNA species.

AUTHOR(S): Arora, Shivani [Reprint Author]; Chauhan, Shyam S.  
CORPORATE SOURCE: shivani\_aiims@yahoo.com  
SOURCE: Indian Journal of Medical Research, (FEB 2005) Vol. 121, No. Suppl. S, pp. 155.  
Meeting Info.: 24th Annual Convention of the Indian-Association-for-Cancer-Research/International Symposium on Human Papillomavirus and Cervical Cancer. Noida, INDIA. February 09 -12, 2005. Indian Assoc Canc Res. ISSN: 0971-5916.

DOCUMENT TYPE: Conference; (Meeting)  
Conference; (Meeting Poster)

LANGUAGE: English

ENTRY DATE: Entered STN: 23 Nov 2005  
Last Updated on STN: 23 Nov 2005

IT Methods & Equipment  
RNase protection assay: laboratory techniques, genetic techniques; *in vitro transcription coupled translation* assay: laboratory techniques, genetic techniques

IT Miscellaneous Descriptors  
translational efficiency; translational stability

L7 ANSWER 3 OF 23 HCPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 2  
ACCESSION NUMBER: 2004:348803 HCPLUS  
DOCUMENT NUMBER: 140:421637  
TITLE: Epidermal growth factor receptor stimulation activates the RNA binding protein CUG-BP1 and increases expression of C/EBP $\beta$ -LIP in mammary epithelial cells

AUTHOR(S): Baldwin, Brenda R.; Timchenko, Nikolai A.; Zahnow, Cynthia A.

CORPORATE SOURCE: Department of Oncology, The Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Baltimore, MD, 21231, USA

SOURCE: Molecular and Cellular Biology (2004), 24(9),

3682-3691

CODEN: MCEBD4; ISSN: 0270-7306

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB The transcription factor CCAAT/enhancer binding protein  $\beta$  (C/EBP $\beta$ ) is a key regulator of growth and differentiation in many tissues. C/EBP $\beta$  is expressed as several distinct protein isoforms (LAP1, LAP2, and LIP) whose expression is regulated by alternative translational initiation at downstream AUG start sites. The dominant-neg. LIP isoform is predominantly expressed during proliferative cellular responses and is associated with aggressive tumors. In this study, we investigated a mechanism by which the LIP isoform is translationally regulated in mammary epithelial cells. We have demonstrated that LIP expression is increased in response to activation of the epidermal growth factor receptor (EGFR) signaling pathway and that the increased expression of LIP is regulated in part by an RNA binding protein referred to as CUG repeat binding protein (CUG-BP1). Our data demonstrate that EGFR signaling results in the phosphorylation of CUG-BP1 and this leads to an increase in the binding of CUG-BP1 to C/EBP $\beta$  mRNA and elevated expression of the LIP isoform. Phosphorylation is necessary for the binding activity of CUG-BP1 and the consequent increase in LIP expression, as determined by binding assays and a cell free, *transcription-coupled translation* system. CUG-BP1 is thus a previously unidentified downstream target of EGFR signaling and represents a new translational regulator of LIP expression in human mammary epithelial cells.

L7 ANSWER 4 OF 23 LIFESCI COPYRIGHT 2007 CSA on STN

ACCESSION NUMBER: 2005:25657 LIFESCI

TITLE: Simultaneous In Vitro Protein Synthesis Using Solid-Phase DNA Template

AUTHOR: DiTursi, M.K.W.; Cha, J.; Newman, M.R.; Dordick, J.S.

CORPORATE SOURCE: Department of Chemical and Biological Engineering and Department of Biology, Rensselaer Polytechnic Institute, Troy, New York 12180, USA; E-mail: dordick@rpi.edu

SOURCE: Biotechnology Progress [Biotechnol. Prog.], (20041200) vol. 20, no. 6, pp. 1705-1709.  
ISSN: 8756-7938.

DOCUMENT TYPE: Journal

FILE SEGMENT: W3

LANGUAGE: English

SUMMARY LANGUAGE: English

AB . . . simultaneous transcription and translation in a wheat-germ extract system. The bound DNA template was stable and did not release during *transcription*. *Coupled translation* resulted in ca. 1.2 ng/  $\mu$  L luciferase synthesized, which is ca. one-fifth of that synthesized using conventional solution-phase coupled.

L7 ANSWER 5 OF 23 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN  
DUPLICATE 3

ACCESSION NUMBER: 2005:136847 BIOSIS

DOCUMENT NUMBER: PREV200500135677

TITLE: Molecular characterization of Sp serotype strains of infectious pancreatic necrosis virus exhibiting differences in virulence.

AUTHOR(S): Shivappa, R. B.; Song, H.; Yao, K.; Aas-Eng, A.; Evensen, O.; Vakharia, V. N. [Reprint Author]

CORPORATE SOURCE: Wyeth Lederle Vaccine and Pediat, Marietta, PA, 17547, USA  
vakharia@umbi.umd.edu

SOURCE: Diseases of Aquatic Organisms, (October 21 2004) Vol. 61,

No. 1-2, pp. 23-32. print.  
CODEN: DAOREO. ISSN: 0177-5103.

DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 6 Apr 2005  
Last Updated on STN: 6 Apr 2005  
AB. . . at Position 119. This was ascertained by making mutants of Segment A clone using site-directed mutagenesis, followed by in vitro **transcription-coupled translation** reaction and immunoprecipitation analyses. In addition, Segment A also encodes a 15 kDa arginine-rich nonstructural protein from a small ORF, . . .

L7 ANSWER 6 OF 23 HCPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 4  
ACCESSION NUMBER: 2003:298358 HCPLUS  
DOCUMENT NUMBER: 139:50818  
TITLE: Differential Transcription-Coupled Translational Inhibition of Human p53 Expression: A Potentially Important Mechanism of Regulating p53 Expression in Normal versus Tumor Tissue  
AUTHOR(S): Strudwick, Stephen; Carastro, L. Michael; Stagg, Tazia; Lazarus, Philip  
CORPORATE SOURCE: Department of Pathology and Laboratory Medicine, Temple University School of Medicine, Philadelphia, FL, USA  
SOURCE: Molecular Cancer Research (2003), 1(6), 463-474  
CODEN: MCROC5; ISSN: 1541-7786  
PUBLISHER: American Association for Cancer Research  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ST **p53 transcription coupled translation inhibition cancer**

L7 ANSWER 7 OF 23 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN  
ACCESSION NUMBER: 2003:218296 BIOSIS  
DOCUMENT NUMBER: PREV200300218296  
TITLE: Mechanisms of protein trafficking: Two different signal sequences fused to green fluorescent protein to study mitochondrial import.  
AUTHOR(S): Weiner, Henry [Reprint Author]  
CORPORATE SOURCE: Biochemistry Department, Purdue University, West Lafayette, IN, USA  
SOURCE: Hicks, Barry W. [Editor, Reprint Author]. (2002) pp. 171-180. Green fluorescent protein: Applications and protocols. print.  
Publisher: Humana Press Inc., 999 Riverview Drive, Suite 208, Totowa, NJ, 07512, USA. Series: Methods in Molecular Biology.  
ISSN: 1064-3745 (ISSN print). ISBN: 0-89603-905-6 (cloth).  
DOCUMENT TYPE: Book; (Book Chapter)  
LANGUAGE: English  
ENTRY DATE: Entered STN: 7 May 2003  
Last Updated on STN: 7 May 2003

IT . . . laboratory techniques; SDS-PAGE apparatus [SDS-polyacrylamide gel electrophoresis apparatus]; laboratory equipment; fluorescence microscopy: imaging and microscopy techniques, laboratory techniques; in vitro **transcription-coupled translation** kit: laboratory kit, Promega  
IT Miscellaneous Descriptors  
mitochondrial import; protein trafficking mechanisms; signal sequences

L7 ANSWER 8 OF 23 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

DUPLICATE 5  
ACCESSION NUMBER: 2002:286707 BIOSIS  
DOCUMENT NUMBER: PREV200200286707  
TITLE: Molecular characterization of a novel nuclear transglutaminase that is expressed during starfish embryogenesis.  
AUTHOR(S): Sugino, Hiroyuki; Terakawa, Yudai; Yamasaki, Akiko; Nakamura, Kazuhiro; Higuchi, Yoshiaki; Matsubara, Juro; Kuniyoshi, Hisato; Ikegami, Susumu [Reprint author]  
CORPORATE SOURCE: Department of Applied Biochemistry, Hiroshima University, 1-4-4 Kagamiyama, Higashi-Hiroshima, Hiroshima, 739-8528, Japan  
sssiike@hiroshima-u.ac.jp  
SOURCE: European Journal of Biochemistry, (April, 2002) Vol. 269, No. 7, pp. 1957-1967. print.  
CODEN: EJBCAI. ISSN: 0014-2956.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 8 May 2002  
Last Updated on STN: 8 May 2002  
AB. . . that encode the N-terminal segment fused to reporter proteins into the germinal vesicle of an oocyte produced chimeric proteins by **transcription-coupled translation**. It was found that the N-terminal segment alone was sufficient to effect nuclear accumulation of an otherwise cytoplasmic protein. These.  
IT Methods & Equipment  
molecular cloning: molecular genetics method, synthetic method  
IT Miscellaneous Descriptors  
**transcription-coupled translation**

L7 ANSWER 9 OF 23 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN  
DUPLICATE 6  
ACCESSION NUMBER: 2002:556078 BIOSIS  
DOCUMENT NUMBER: PREV200200556078  
TITLE: Identification and characterization of a novel human cathepsin L splice variant.  
AUTHOR(S): Arora, Shivani; Chauhan, Shyam S. [Reprint author]  
CORPORATE SOURCE: Department of Biochemistry, All India Institute of Medical Sciences, Ansari Nagar, New Delhi, 110029, India  
s\_s\_chauhan@hotmail.com  
SOURCE: Gene (Amsterdam), (26 June, 2002) Vol. 293, No. 1-2, pp. 123-131. print.  
CODEN: GENED6. ISSN: 0378-1119.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 30 Oct 2002  
Last Updated on STN: 30 Oct 2002  
AB. . . AIII. HCATL AIII was observed to be the most abundant splice variant in five different human cell lines. In vitro **transcription coupled translation** studies revealed that hCATL AIII is translated with 4.4-, 3.9- and 1.6-fold higher efficiency as compared to hCATL A, AI. . .  
IT Sequence Data  
18606600: nucleotide sequence; NT-023935: nucleotide sequence  
IT Methods & Equipment  
Promega in vitro **transcription coupled translation** assay system: Promega, laboratory kit; Promega luciferase assay system: Promega, laboratory kit; cloning: Molecular Biology Techniques and Chemical Characterization, cloning method; **transcription coupled translation** studies: Molecular Biology Techniques and Chemical Characterization, molecular genetic method  
IT Miscellaneous Descriptors  
alternative splicing; enzymatic activities; translation efficiency

L7 ANSWER 10 OF 23 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on  
STN

ACCESSION NUMBER: 2001:532053 BIOSIS  
DOCUMENT NUMBER: PREV200100532053  
TITLE: Characterization of the physical interaction between  
estrogen receptor alpha and JUN proteins.  
AUTHOR(S): Teyssier, Catherine; Belguise, Karine; Galtier, Florence;  
Chalbos, Dany [Reprint author]  
CORPORATE SOURCE: Endocrinologie Moleculaire et Cellulaire des Cancers,  
Institut National de la Sante et de la Recherche Medicale,  
60 Rue de Navacelles, U 540, Montpellier, 34090, France  
chalbos@u540.montp.inserm.fr  
SOURCE: Journal of Biological Chemistry, (September 28, 2001) Vol.  
276, No. 39, pp. 36361-36369. print.  
CODEN: JBCHA3. ISSN: 0021-9258.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 14 Nov 2001  
Last Updated on STN: 23 Feb 2002

IT Methods & Equipment  
Fuji BAS1000 Bioimaging Analyzer: Raytest, laboratory equipment; TnT in  
vitro *transcription-coupled translation*  
system: Promega, laboratory equipment; coimmunoprecipitation:  
Immunologic Techniques, precipitation method; coimmunoprecipitation  
assay: laboratory equipment; glutathione S-transferase pull-down assay:  
laboratory equipment; two-hybrid. . .

L7 ANSWER 11 OF 23 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on  
STN DUPLICATE 7

ACCESSION NUMBER: 2001:419169 BIOSIS  
DOCUMENT NUMBER: PREV200100419169  
TITLE: Ostip2, a novel oncoprotein that associates with the Rho  
exchange factor Ost.  
AUTHOR(S): Yamanaka, Ryuya; Blumenthal, Rayah; Lorenzi, Matthew V.;  
Tatsumoto, Takashi; Miki, Toru [Reprint author]  
CORPORATE SOURCE: Molecular Tumor Biology Section, Basic Research Laboratory,  
National Cancer Institute, 37 Convent Drive, Building 37,  
Room 1E24, Bethesda, MD, 20892-4255, USA  
toru@helix.nih.gov  
SOURCE: DNA and Cell Biology, (July, 2001) Vol. 20, No. 7, pp.  
383-390. print.  
CODEN: DCEBE8. ISSN: 1044-5498.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 29 Aug 2001  
Last Updated on STN: 22 Feb 2002  
AB. . . is highly expressed in skeletal muscle as a 1.2-kb transcript.  
Full-length OSTIP2 cDNA contained an ORF of 193 amino acids.  
*Transcription-coupled translation* of OSTIP2  
cDNA in reticulocyte lysates revealed a protein product of 20 kDa, which  
corresponded to the predicted size of. . .

L7 ANSWER 12 OF 23 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on  
STN DUPLICATE 8

ACCESSION NUMBER: 2000:167161 BIOSIS  
DOCUMENT NUMBER: PREV200000167161  
TITLE: *Transcription-coupled translation* control of AML1/RUNX1 is mediated by  
cap- and internal ribosome entry site-dependent mechanisms.  
AUTHOR(S): Pozner, Amir; Goldenberg, Dalia; Negreanu, Varda; Le,  
Shu-Yun; Elroy-Stein, Orna; Levanon, Ditsa; Groner, Yoram  
[Reprint author]  
CORPORATE SOURCE: Department of Molecular Genetics, Weizmann Institute of

SOURCE: Science, Rehovot, 76000, Israel  
Molecular and Cellular Biology, (April, 2000) Vol. 20, No.  
7, pp. 2297-2307. print.  
CODEN: MCEBD4. ISSN: 0270-7306.

DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 3 May 2000  
Last Updated on STN: 4 Jan 2002

TI *Transcription-coupled translation* control of  
AML1/RUNX1 is mediated by cap- and internal ribosome entry site-dependent  
mechanisms.

L7 ANSWER 13 OF 23 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on  
STN DUPLICATE 9

ACCESSION NUMBER: 1999:313412 BIOSIS  
DOCUMENT NUMBER: PREV199900313412

TITLE: Rhmod syndrome: A family study of the translation-initiator  
mutation in the Rh50 glycoprotein gene.

AUTHOR(S): Huang, C.-H. [Reprint author]; Cheng, G.-J.; Reid, M. E.;  
Chen, Y.

CORPORATE SOURCE: Laboratory of Biochemistry and Molecular Genetics, Lindsley  
F. Kimball Research Institute, New York Blood Center, New  
York, NY, 10021, USA

SOURCE: American Journal of Human Genetics, (Jan., 1999) Vol. 64,  
No. 1, pp. 108-117. print.  
CODEN: AJHGAG. ISSN: 0002-9297.

DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 17 Aug 1999  
Last Updated on STN: 17 Aug 1999

AB. . . showed a very weak expression of Rh antigens; immunoblotting barely  
detected the Rh proteins in the Rhmod membrane. In vitro  
*transcription-coupled translation* assays  
showed that the initiator mutants of Rhmod-but not those of the wild  
type-could be translated from ATG codons downstream.. . .

L7 ANSWER 14 OF 23 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on  
STN DUPLICATE 10

ACCESSION NUMBER: 1998:302344 BIOSIS  
DOCUMENT NUMBER: PREV199800302344

TITLE: Molecular cloning and characterization of a rabbit eIF2C  
protein.

AUTHOR(S): Zou, Cheng; Zhang, Zhongli; Wu, Shiyong; Osterman, John C.  
[Reprint author]

CORPORATE SOURCE: Dep. Biol. Sci., Univ. Nebraska, Lincoln, NE 68588, USA  
SOURCE: Gene (Amsterdam), (May 12, 1998) Vol. 211, No. 2, pp.  
187-194. print.  
CODEN: GENED6. ISSN: 0378-1119.

DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 15 Jul 1998  
Last Updated on STN: 15 Jul 1998

AB. . . detected a higher-molecular-weight polypeptide (140 kDa). No 94 kDa  
polypeptide was detected. The cloned cDNA was further characterized by  
in-vitro *transcription-coupled translation*  
in reticulocyte lysate. The translated product was precipitated with  
antibodies against eIF2C. Genomic Southern blot analysis indicates that  
the rabbit. . .

L7 ANSWER 15 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 11

ACCESSION NUMBER: 1998:438144 HCAPLUS  
DOCUMENT NUMBER: 129:171313

TITLE: Prediction of the coding sequences of unidentified  
human genes. X. The complete sequences of 100 new cDNA

clones from brain which can code for large proteins in vitro  
AUTHOR(S): Ishikawa, Ken-ichi; Nagase, Takahiro; Suyama, Mikita; Miyajima, Nobuyuki; Tanaka, Ayako; Kotani, Hirokazu; Nomura, Nobuo; Ohara, Osamu  
CORPORATE SOURCE: Kazusa DNA Res. Inst., Yana, Kisarazu, Chiba, 292-0812, Japan  
SOURCE: DNA Research (1998), 5(3), 169-176  
CODEN: DARSE8; ISSN: 1340-2838  
PUBLISHER: Kazusa DNA Research Institute  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB As an extension of our cDNA anal. for deducing the coding sequences of unidentified human genes, we have newly determined the sequences of 100 cDNA clones from a set of size-fractionated human brain cDNA libraries, and predicted the coding sequences of the corresponding genes, named KIAA0611 to KIAA0710. In vitro *transcription-coupled translation* assay was applied as the first screening to select cDNA clones which produce proteins with apparent mol. mass of 50 kDa and over. One hundred unidentified cDNA clones thus selected were then subjected to sequencing of entire inserts. The average size of the inserts and corresponding open reading frames was 4.9 kb and 2.8 kb (922 amino acid residues), resp. Computer search of the sequences against the public databases indicated that predicted coding sequences of 87 genes were similar to those of known genes, 62% of which (54 genes) were categorized as proteins related to cell signaling/communication, cell structure/motility and nucleic acid management. The expression profiles in 10 human tissues of all the clones characterized in this study were examined by reverse transcription-coupled polymerase chain reaction and the chromosomal locations of the clones were determined by using human-rodent hybrid panels.

L7 ANSWER 16 OF 23 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 12  
ACCESSION NUMBER: 1993:342758 BIOSIS  
DOCUMENT NUMBER: PREV199396039758  
TITLE: Cloning and characterization of complementary DNA encoding the eukaryotic initiation factor 2-associated 67-kDa protein (p-67).  
AUTHOR(S): Wu, Shiyong; Gupta, Swati; Chatterjee, Nabendu; Hileman, Ronald E.; Kinzy, Terry G.; Denslow, Nancy D.; Merrick, William C.; Chakrabarti, Debopam; Osterman, John C.; Gupta, Naba K. [Reprint author]  
CORPORATE SOURCE: Dep. Chem., University Nebraska, Lincoln, NE 68588, USA  
SOURCE: Journal of Biological Chemistry, (1993) Vol. 268, No. 15, pp. 10796-10801.  
CODEN: JBCHA3. ISSN: 0021-9258.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 26 Jul 1993  
Last Updated on STN: 26 Jul 1993

AB . . . molecular mass of 53 kilodaltons was predicted for the unglycosylated protein. The cloned cDNA was further characterized by in vitro *transcription-coupled translation* in micrococcal nuclease-treated reticulocyte lysate. The translated product migrated similarly to p-67 in SDS-polyacrylamide gel electrophoresis and was precipitated with . . .

L7 ANSWER 17 OF 23 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 13  
ACCESSION NUMBER: 1991:297606 BIOSIS  
DOCUMENT NUMBER: PREV199192018621; BA92:18621

TITLE: THE HUMAN PIM-1 GENE PRODUCT IS A PROTEIN SERINE KINASE.  
AUTHOR(S): PADMA R [Reprint author]; NAGARAJAN L  
CORPORATE SOURCE: DEP HEMATOLOGY, BOX 24, M D ANDERSON CANCER CENT, 1515  
HOLCOMBE BLVD, HOUSTON, TX 77030, USA  
SOURCE: Cancer Research, (1991) Vol. 51, No. 9, pp. 2486-2489.  
CODEN: CNREA8. ISSN: 0008-5472.  
DOCUMENT TYPE: Article  
FILE SEGMENT: BA  
LANGUAGE: ENGLISH  
ENTRY DATE: Entered STN: 25 Jun 1991  
Last Updated on STN: 25 Jun 1991  
AB. . . of hematolymphoid malignancies. Deduced amino acid sequence of  
PIM-1 complementary DNA predicts it to be a protein kinase. In vitro  
*transcription coupled translation* of the  
putative 313-amino acid open reading frame yields a Mr 34,000 protein; an  
immune complex kinase assay of the. . .  
  
L7 ANSWER 18 OF 23 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on  
STN DUPLICATE 14  
ACCESSION NUMBER: 1988:330816 BIOSIS  
DOCUMENT NUMBER: PREV198886037367; BA86:37367  
TITLE: SEQUENCE ANALYSIS EXPRESSION AND CONSERVATION OF  
ESCHERICHIA-COLI URACIL DNA GLYCOSYLASE AND ITS GENE UNG.  
AUTHOR(S): VARSHNEY U [Reprint author]; HUTCHEON T; VAN DE SANDE J H  
CORPORATE SOURCE: DEP MED BIOCHEM, FAC MED, UNIV CALGARY, CALGARY, CANADA T2N  
4N1  
SOURCE: Journal of Biological Chemistry, (1988) Vol. 263, No. 16,  
pp. 7776-7784.  
CODEN: JBCHA3. ISSN: 0021-9258.  
DOCUMENT TYPE: Article  
FILE SEGMENT: BA  
LANGUAGE: ENGLISH  
ENTRY DATE: Entered STN: 21 Jul 1988  
Last Updated on STN: 21 Jul 1988  
AB. . . gene. The protein sequence analysis shows that the N-terminal  
methionine is cleaved off in the mature protein. The in vitro  
*transcription coupled translation* of the ung  
gene directs the synthesis of a protein which comigrates with uracil DNA  
glycosylase. Also, the CNBr cleavage. . .  
  
L7 ANSWER 19 OF 23 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on  
STN  
ACCESSION NUMBER: 1986:408200 BIOSIS  
DOCUMENT NUMBER: PREV198631084166; BR31:84166  
TITLE: SYNTHESIS OF RECOMBINANT HUMAN PLACENTAL ALKALINE  
PHOSPHATASE-SPECIFIC ANTIBODIES.  
AUTHOR(S): DE WAELE P [Reprint author]; MOLEMANS F; VAN DE VOORDE A;  
FIERS W  
CORPORATE SOURCE: LABORATORY MOLECULAR BIOLOGY, STATE UNIVERSITY GHENT,  
BELGIUM  
SOURCE: Journal of Cellular Biochemistry Supplement, (1986) No. 10  
PART D, pp. 130.  
Meeting Info.: SYMPOSIUM ON TRANSCRIPTIONAL CONTROL  
MECHANISMS HELD AT THE 15TH ANNUAL MEETING OF THE UCLA  
(UNIVERSITY OF CALIFORNIA-LOS ANGELES) SYMPOSIA ON  
MOLECULAR AND CELLULAR BIOLOGY, APR. 6-13, 1986. J CELL  
BIOCHEM SUPPL.  
ISSN: 0733-1959.  
DOCUMENT TYPE: Conference; (Meeting)  
FILE SEGMENT: BR  
LANGUAGE: ENGLISH  
ENTRY DATE: Entered STN: 14 Oct 1986  
Last Updated on STN: 14 Oct 1986  
IT Miscellaneous Descriptors

ABSTRACT TRANSCRIPTION-COUPLED TRANSLATION  
SYSTEM

L7 ANSWER 20 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1985:73528 HCAPLUS  
DOCUMENT NUMBER: 102:73528  
TITLE: A novel in vitro transcription-translation system:  
accurate and efficient synthesis of single proteins  
from cloned DNA sequences  
AUTHOR(S): Stueber, Dietrich; Ibrahim, Ibrahim; Cutler, Daniel;  
Dobberstein, Bernhard; Bujard, Hermann  
CORPORATE SOURCE: Univ. Heidelberg, Heidelberg, D-6900, Fed. Rep. Ger.  
SOURCE: EMBO Journal (1984), 3(13), 3143-8  
CODEN: EMJODG; ISSN: 0261-4189  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT Protein formation  
(of single proteins, from cloned DNA sequences, *transcription*  
*-coupled translation* system for)  
IT Virus, bacterial  
(T5, *transcription-coupled translation*  
system containing promoter of, for formation of single proteins from cloned  
DNA sequences)  
IT Gene and Genetic element, microbial  
(promoter, of coliphage T5, *transcription-coupled*  
*translation* system containing, for formation of single proteins  
from cloned DNA sequences)  
IT 9001-63-2 9002-03-3 9040-07-7  
RL: FORM (Formation, nonpreparative)  
(formation of, from cloned DNA sequences, *transcription-*  
*coupled translation* system for)

L7 ANSWER 21 OF 23 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on  
STN

ACCESSION NUMBER: 1984:354879 BIOSIS  
DOCUMENT NUMBER: PREV198478091359; BA78:91359  
TITLE: REGULATION AND COUPLING OF ARG-ECBH MESSENGER RNA AND  
ENZYME SYNTHESIS IN CELL EXTRACTS OF ESCHERICHIA-COLI.

AUTHOR(S): ZIDWICK M J [Reprint author]; KELLER G; ROGERS P  
CORPORATE SOURCE: DEP OF MICROBIOLOGY, UNIV OF MINNESOTA, MINNEAPOLIS,  
MINNESOTA 55455, USA  
SOURCE: Journal of Bacteriology, (1984) Vol. 159, No. 2, pp.  
640-646.  
CODEN: JOBAAY. ISSN: 0021-9193.

DOCUMENT TYPE: Article

FILE SEGMENT: BA

LANGUAGE: ENGLISH

IT Miscellaneous Descriptors

PHAGE LAMBDA PHAGE PHI-80 ARGINO SUCCINASE N ACETYL ORNITHINASE  
*TRANSCRIPTION COUPLED TRANSLATION* L  
ARGININE RHO PROTEIN/

L7 ANSWER 22 OF 23 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1976:85768 HCAPLUS  
DOCUMENT NUMBER: 84:85768  
TITLE: Differentiation and the evolutionary persistence of  
semi-autonomous organelles  
AUTHOR(S): Morpurgo, G.  
CORPORATE SOURCE: Univ. Roma, Rome, Italy  
SOURCE: Mol. Biol. Nucleocytoplasmic Relat. (1975), 69-72.  
Editor(s): Puiseux-Dao, S. Elsevier: Amsterdam, Neth.  
CODEN: 32GSA5  
DOCUMENT TYPE: Conference  
LANGUAGE: English

AB A hypothesis on the meaning of the persistence in the eukaryotic cells of autonomous organelles with a bacterial type machinery for protein synthesis is discussed. According to the hypothesis, organelles were maintained during evolution to conserve for some functions a system which permits rapid and efficient adaptation to a changing environment. Rapid adaptation at the transcription level requires 70 S ribosomes and naked DNA to permit *transcription-coupled translation*. The change in the system of adaptation in eukaryotes was determined by the evolution of differentiative systems of control. The need of a different system of adaptation determined the evolution toward 80 S ribosomes which probably are better suited to perform adaptation at the translational level.

L7 ANSWER 23 OF 23 LIFESCI COPYRIGHT 2007 CSA on STN

ACCESSION NUMBER: 91:32688 LIFESCI

TITLE: The human PIM-1 gene product is a protein serine kinase.

AUTHOR: Padma, R.; Nagarajan, L.

CORPORATE SOURCE: Dep. Hematol., Box 24, M.D. Anderson Cancer Cent., 1515 Holcombe Blvd., Houston, TX 77030, USA

SOURCE: CANCER RES., vol. 51, no. 9, pp. 2486-2489.

DOCUMENT TYPE: Journal

FILE SEGMENT: B; L

LANGUAGE: English

SUMMARY LANGUAGE: English

AB . . . of hematolymphoid malignancies. Deduced amino acid sequence of PIM-1 complementary DNA predicts it to be a protein kinase. In vitro *transcription coupled translation* of the putative 313-amino acid open reading frame yields a M sub(r) 34,000 protein; an immune complex kinase assay of. . .

=> d his

(FILE 'HOME' ENTERED AT 14:02:50 ON 17 SEP 2007)

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPP, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, . . .' ENTERED AT 14:03:04 ON 17 SEP 2007  
SEA (LABELED (W) (PROTEIN OR PEPTIDE OR POLYPEPTIDE)) AND (NANO

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1 FILE BIOENG  
1 FILE BIOTECHABS  
1 FILE BIOTECHDS  
12 FILE CAPLUS  
1 FILE ESBIOBASE  
6 FILE IFIPAT  
1 FILE LIFESCI  
1 FILE SCISEARCH  
1 FILE TOXCENTER  
85 FILE USPATFULL  
9 FILE USPAT2  
2 FILE WPIDS  
2 FILE WPINDEX

L1 QUE (LABELED (W) (PROTEIN OR PEPTIDE OR POLYPEPTIDE)) AND (NANO

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SEA (TRANSCRIPTION COUPLED TRANSLATION) AND (LABELED (W) AMINO

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1 FILE USPATFULL  
1 FILE USPAT2

L2 QUE (TRANSCRIPTION COUPLED TRANSLATION) AND (LABELED (W) AMINO

-----  
SEA (TRANSCRIPTION COUPLED TRANSLATION)

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1 FILE AQUASCI  
2 FILE BIOENG  
16 FILE BIOSIS  
2 FILE BIOTECHABS  
2 FILE BIOTECHDS  
8 FILE BIOTECHNO  
2 FILE CABA  
16 FILE CAPLUS  
1 FILE DISSABS  
2 FILE DRUGU  
10 FILE EMBASE  
9 FILE ESBIOBASE  
31 FILE GENBANK  
4 FILE IFIPAT  
8 FILE LIFESCI  
13 FILE MEDLINE  
4 FILE PASCAL  
11 FILE SCISEARCH  
7 FILE TOXCENTER  
25 FILE USPATFULL  
3 FILE USPAT2

L3           QUE (TRANSCRIPTION COUPLED TRANSLATION)

-----  
FILE 'BIOSIS, HCAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH, TOXCENTER'  
ENTERED AT 14:12:30 ON 17 SEP 2007

L4           15 S L1  
L5           81 S L3  
L6           12 DUP REM L4 (3 DUPLICATES REMOVED)  
L7           23 DUP REM L5 (58 DUPLICATES REMOVED)